FIG.1

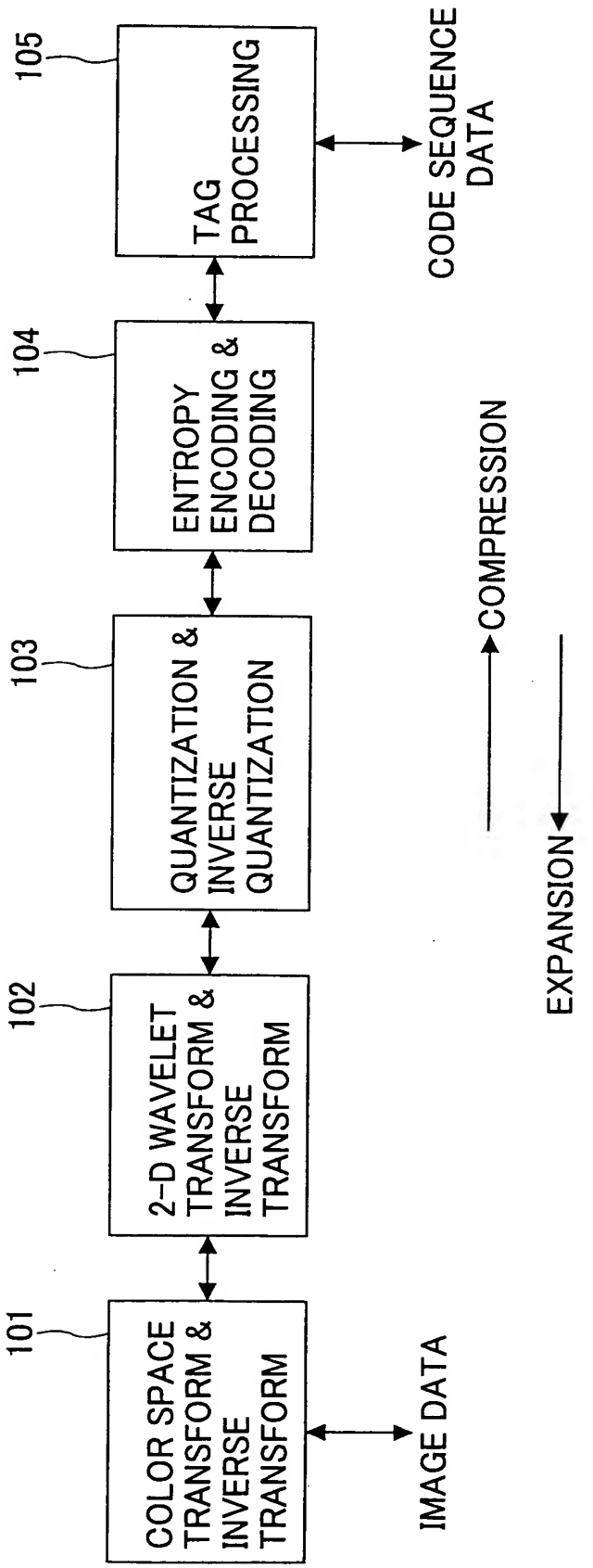

105
TAG PROCESSING
CODE SEQUENCE DATA
104
ENTROPY ENCODING & DECODING
103
QUANTIZATION & INVERSE QUANTIZATION
102
2-D WAVELET TRANSFORM & INVERSE TRANSFORM
101
COLOR SPACE TRANSFORM & INVERSE TRANSFORM
IMAGE DATA
COMPRESSION
EXPANSION

FIG.2

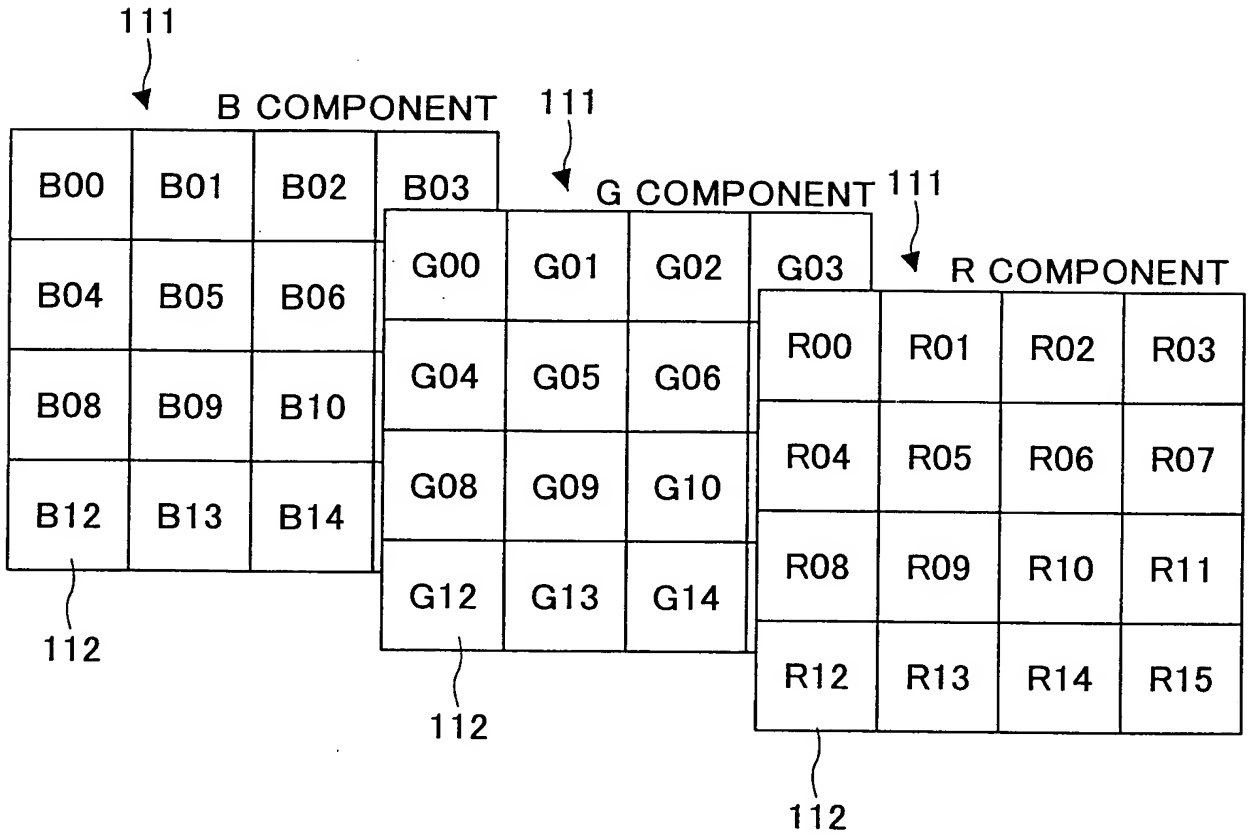
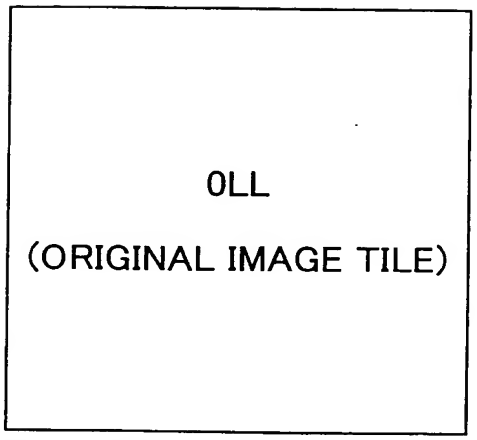
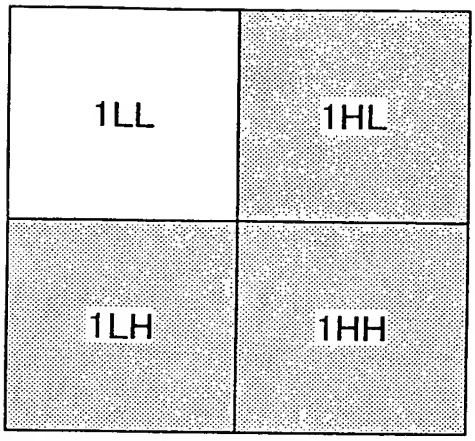

111
B COMPONENT
111
G COMPONENT
111
R COMPONENT
B00 B01 B02 B03
B04 B05 B06
B08 B09 B10
B12 B13 B14
G00 G01 G02 G03
G04 G05 G06
G08 G09 G10
G12 G13 G14
R00 R01 R02 R03
R04 R05 R06 R07
R08 R09 R10 R11
R12 R13 R14 R15
112
112
112

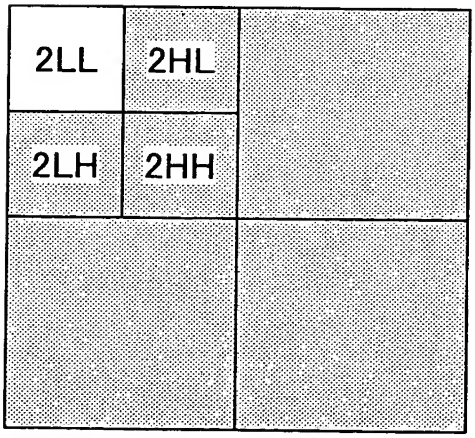
FIG.3



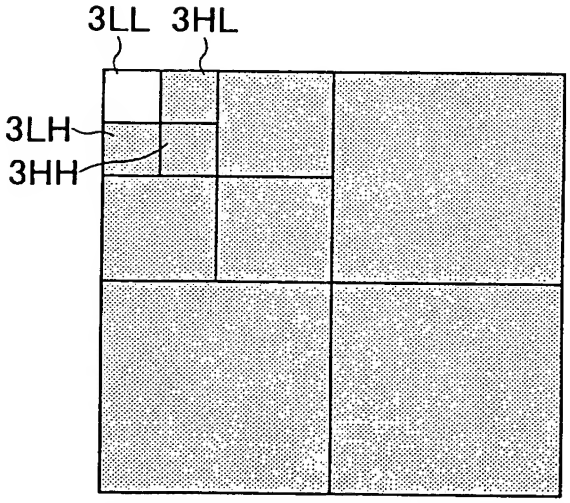
DECOMPOSITION_LEVEL1_0



DECOMPOSITION_LEVEL1_1



DECOMPOSITION_LEVEL1_2



DECOMPOSITION_LEVEL1_3

FIG.4

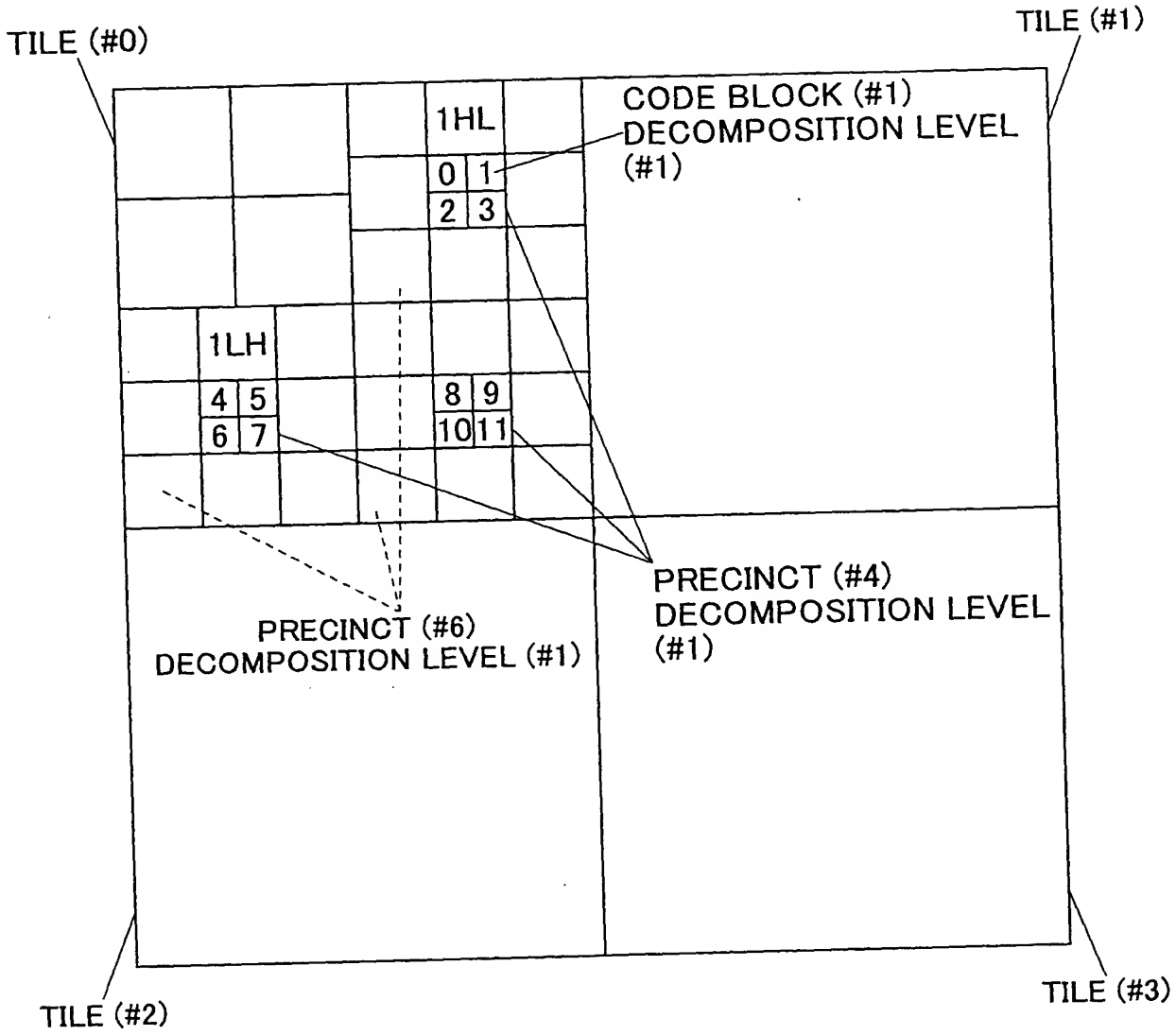

TILE (#0)
TILE (#1)
1HL
0 1
2 3
CODE BLOCK (#1)
DECOMPOSITION LEVEL
(#1)
1LH
4 5
6 7
8 9
10 11
PRECINCT (#4)
DECOMPOSITION LEVEL
(#1)
PRECINCT (#6)
DECOMPOSITION LEVEL (#1)
TILE (#2)
TILE (#3)

FIG.5

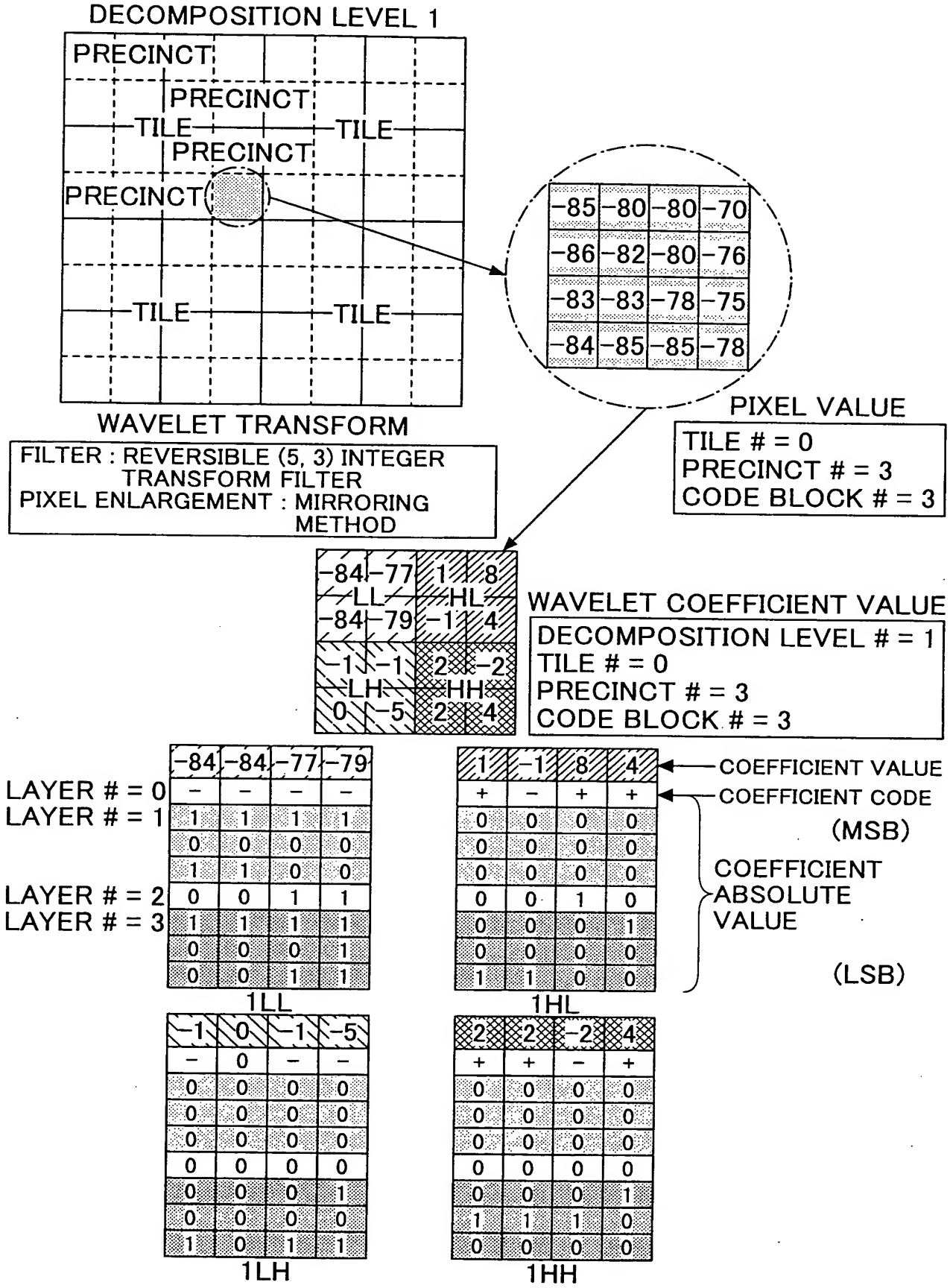

DECOMPOSITION LEVEL 1
PRECINCT
PRECINCT
TILE
TILE
PRECINCT
PRECINCT
TILE
TILE
-85 -80 -80 -70
-86 -82 -80 -76
-83 -83 -78 -75
-84 -85 -85 -78
PIXEL VALUE
TILE # = 0
PRECINCT # = 3
CODE BLOCK # = 3
WAVELET TRANSFORM
FILTER : REVERSIBLE (5, 3) INTEGER TRANSFORM FILTER
PIXEL ENLARGEMENT : MIRRORING METHOD
-84 -77 1 8
LL HL
-84 -79 -1 4
-1 -1 2 -2
LH HH
0 -5 2 4
WAVELET COEFFICIENT VALUE
DECOMPOSITION LEVEL # = 1
TILE # = 0
PRECINCT # = 3
CODE BLOCK # = 3
LAYER # = 0
LAYER # = 1
LAYER # = 2
LAYER # = 3
-84 -84 -77 -79
1LL
1 -1 8 4
COEFFICIENT VALUE
COEFFICIENT CODE
(MSB)
COEFFICIENT ABSOLUTE VALUE
(LSB)
1HL
-1 0 -1 -5
1LH
2 2 -2 4
1HH

FIG.6

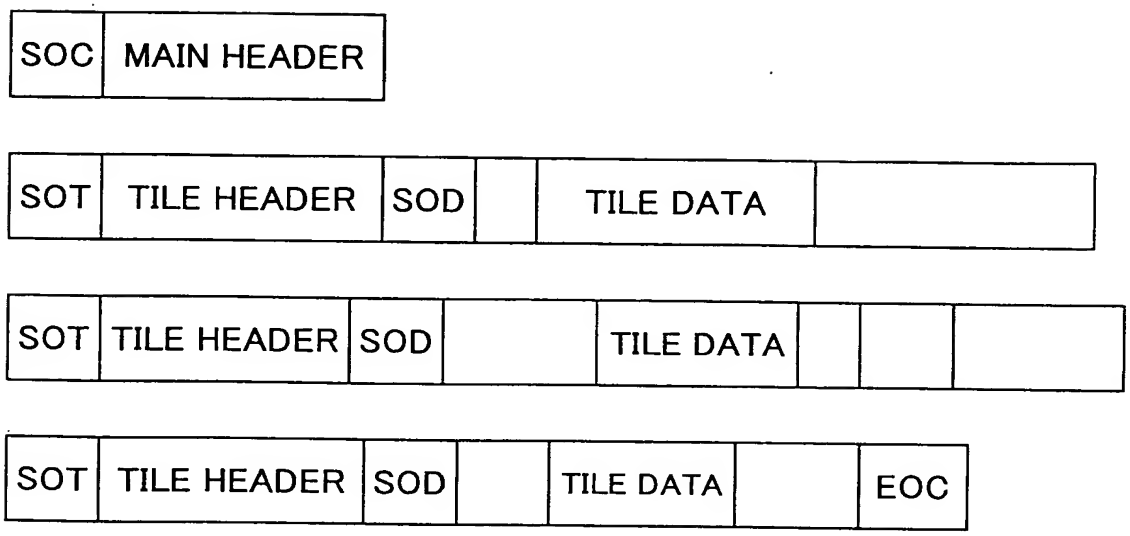

SOC
MAIN HEADER
SOT
TILE HEADER
SOD
TILE DATA
SOT
TILE HEADER
SOD
TILE DATA
SOT
TILE HEADER
SOD
TILE DATA
EOC

FIG.7

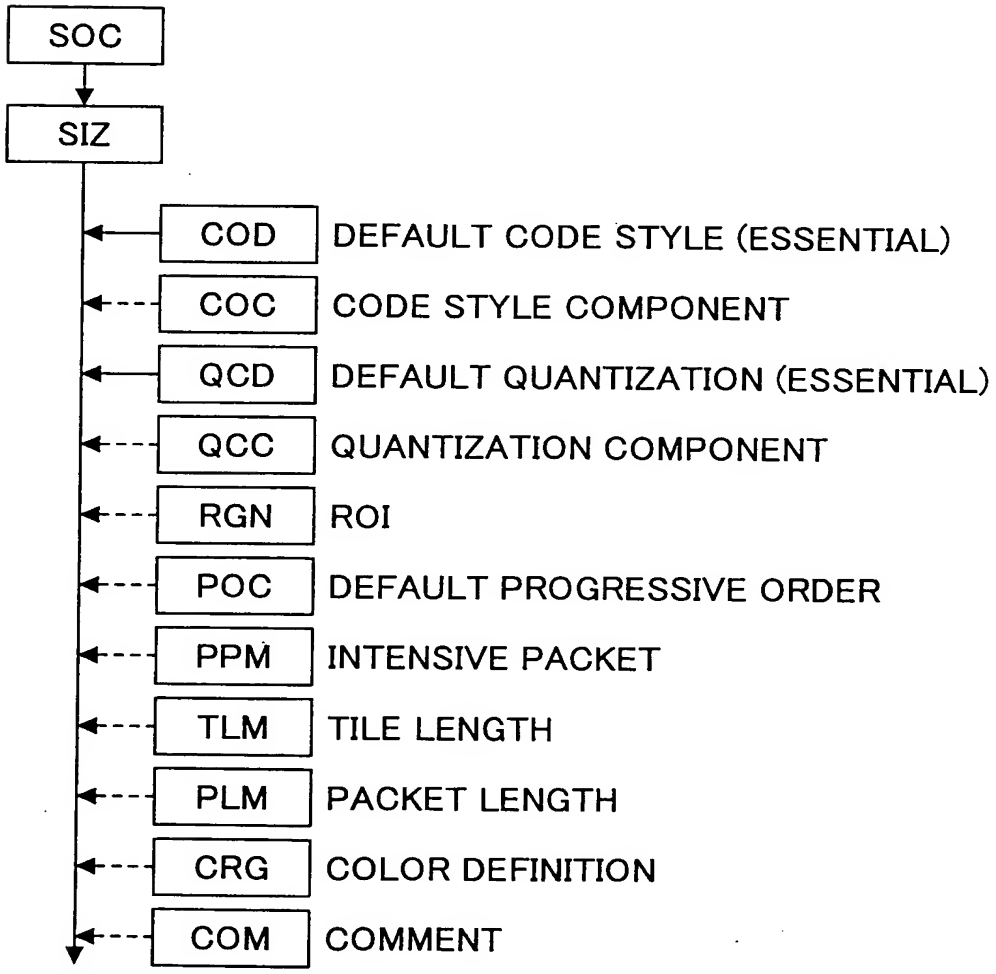

SOC
SIZ
COD
DEFAULT CODE STYLE (ESSENTIAL)
COC
CODE STYLE COMPONENT
QCD
DEFAULT QUANTIZATION (ESSENTIAL)
QCC
QUANTIZATION COMPONENT
RGN
ROI
POC
DEFAULT PROGRESSIVE ORDER
PPM
INTENSIVE PACKET
TLM
TILE LENGTH
PLM
PACKET LENGTH
CRG
COLOR DEFINITION
COM
COMMENT

FIG.8A

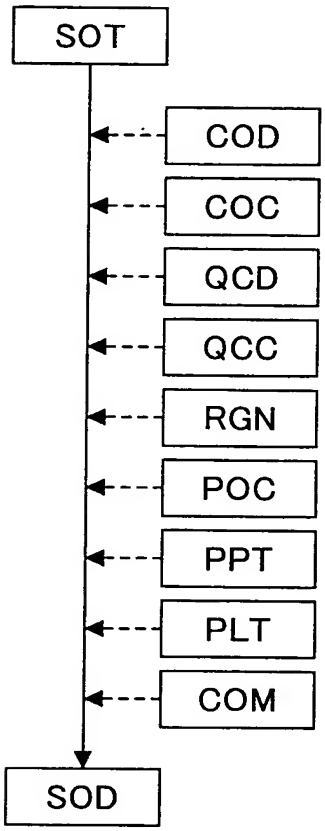


FIG.8B

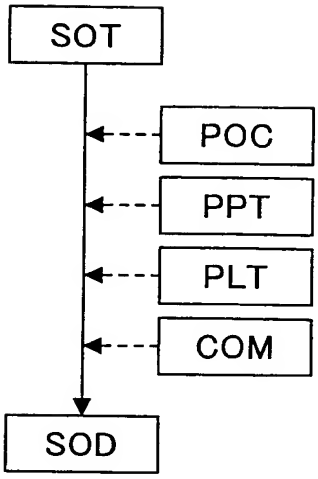


FIG.9

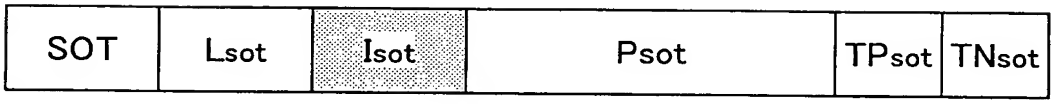


FIG.10

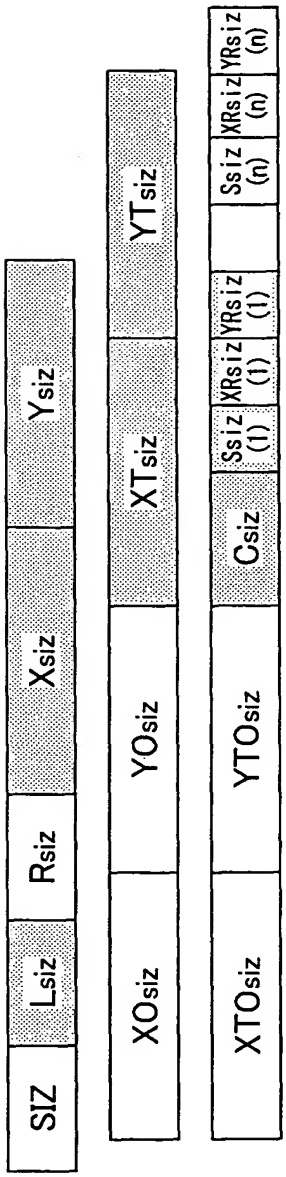

SIZ
Lsiz
Rsiz
Xsiz
Ysiz
XOsiz
YOsiz
XTsiz
YTsiz
XTOsiz
YTOsiz
Csiz
Ssiz (1)
XRsiz (1)
YRsiz (1)
Ssiz (n)
XRsiz (n)
YRsiz (n)

FIG.11

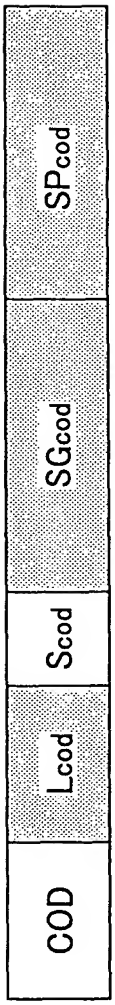

COD
Lcod
Scod
SGcod
SPcod

FIG.12

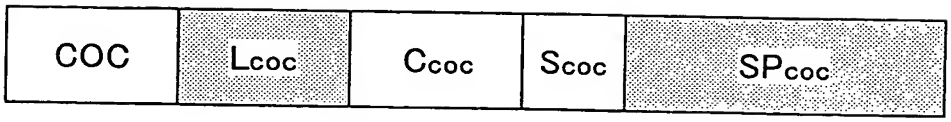


FIG.13

FIG.14

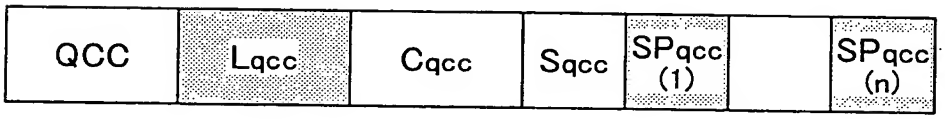


FIG.15

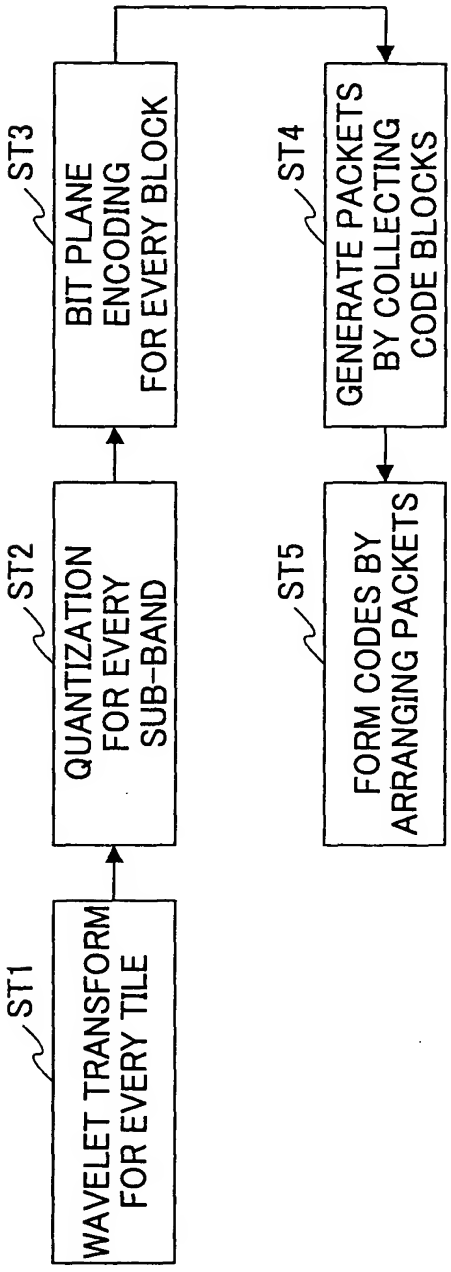
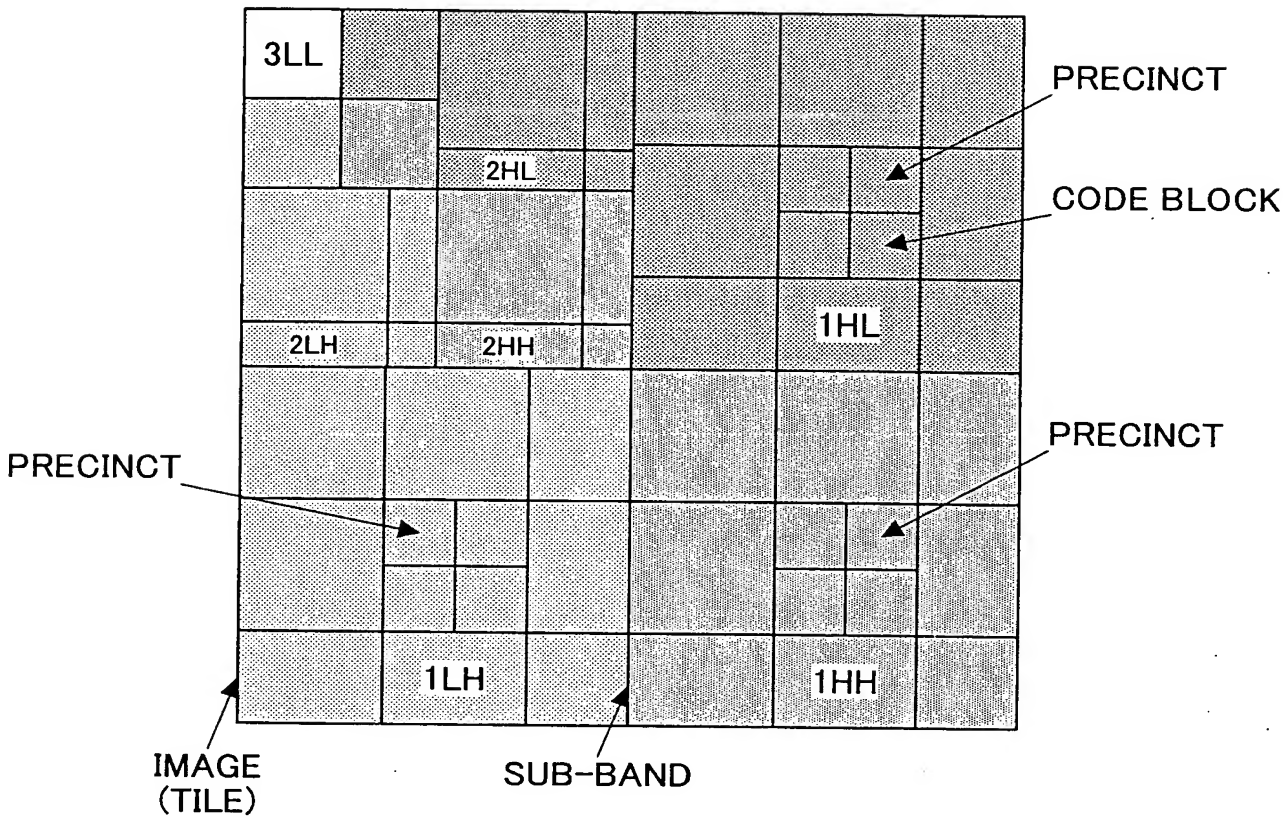

ST1
WAVELET TRANSFORM FOR EVERY TILE
ST2
QUANTIZATION FOR EVERY SUB-BAND
ST3
BIT PLANE ENCODING FOR EVERY BLOCK
ST4
GENERATE PACKETS BY COLLECTING CODE BLOCKS
ST5
FORM CODES BY ARRANGING PACKETS

FIG.16


3LL
2HL
2LH
2HH
1HL
1LH
1HH
PRECINCT
CODE BLOCK
PRECINCT
PRECINCT
IMAGE
(TILE)
SUB-BAND

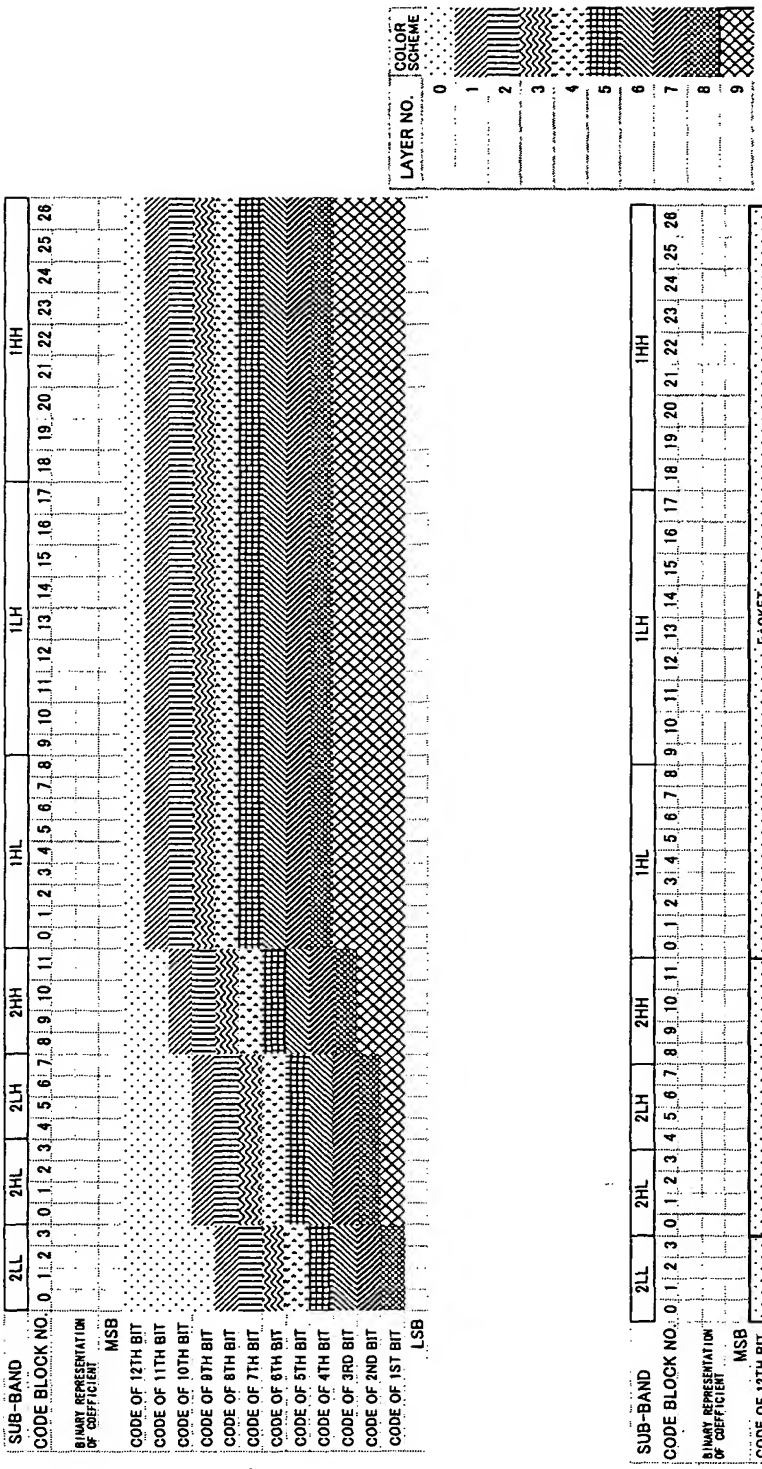


FIG.17A

FIG.17B

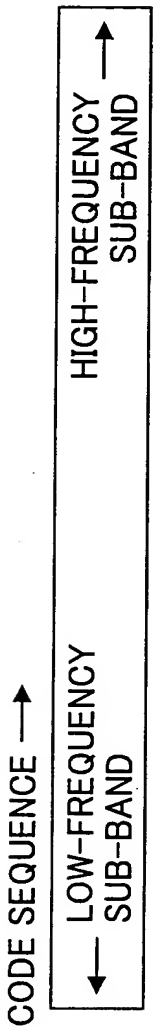


FIG.18A

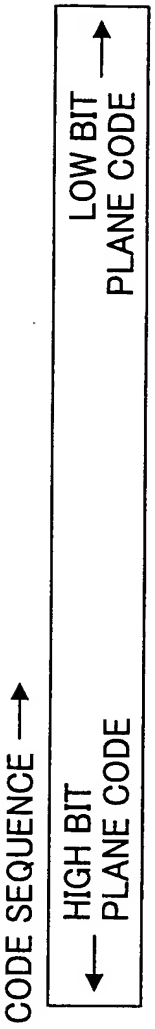


FIG.18B

FIG.19

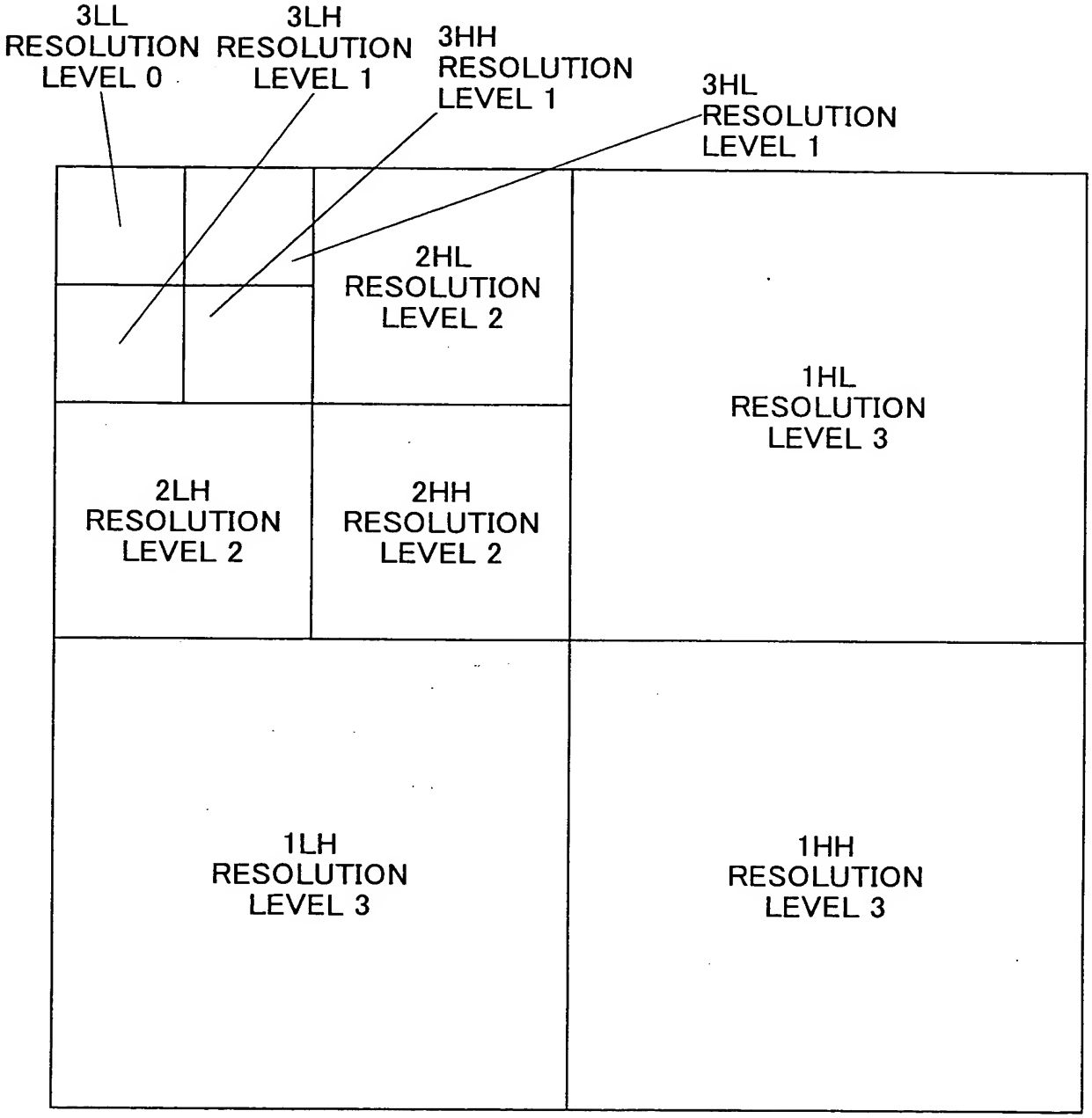

3LL
RESOLUTION
LEVEL 0
3LH
RESOLUTION
LEVEL 1
3HH
RESOLUTION
LEVEL 1
3HL
RESOLUTION
LEVEL 1
2HL
RESOLUTION
LEVEL 2
1HL
RESOLUTION
LEVEL 3
2LH
RESOLUTION
LEVEL 2
2HH
RESOLUTION
LEVEL 2
1LH
RESOLUTION
LEVEL 3
1HH
RESOLUTION
LEVEL 3

FIG.20

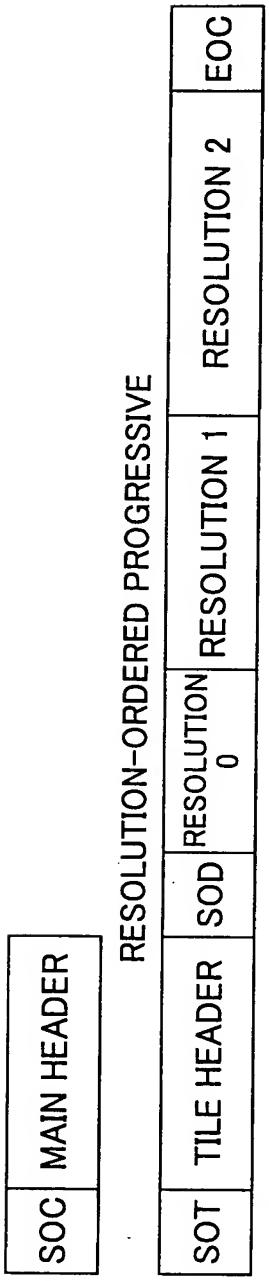

SOC
MAIN HEADER
RESOLUTION-ORDERED PROGRESSIVE
SOT
TILE HEADER
SOD
RESOLUTION 0
RESOLUTION 1
RESOLUTION 2
EOC

FIG.21

LRCP

PACKET 0	PACKET 1	PACKET 2	PACKET 3	PACKET 4	PACKET 5
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1
COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0	COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0

PACKET 6	PACKET 7	PACKET 8	PACKET 9	PACKET 10	PACKET 11
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 0 PRECINCT 0	COMPONENT 0 PRECINCT 1	COMPONENT 0 PRECINCT 2	COMPONENT 0 PRECINCT 3	COMPONENT 1 PRECINCT 0	COMPONENT 1 PRECINCT 1

PACKET 12	PACKET 13	PACKET 14	PACKET 15	PACKET 16	PACKET 17
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 1 PRECINCT 2	COMPONENT 1 PRECINCT 3	COMPONENT 2 PRECINCT 0	COMPONENT 2 PRECINCT 1	COMPONENT 2 PRECINCT 2	COMPONENT 2 PRECINCT 3

PACKET 18	PACKET 19	PACKET 20	PACKET 21	PACKET 22	PACKET 23
LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1
RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1
COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0	COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0

PACKET 24	PACKET 25	PACKET 26	PACKET 27	PACKET 28	PACKET 29
LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 0 PRECINCT 0	COMPONENT 0 PRECINCT 1	COMPONENT 0 PRECINCT 2	COMPONENT 0 PRECINCT 3	COMPONENT 1 PRECINCT 0	COMPONENT 1 PRECINCT 1

PACKET 30	PACKET 31	PACKET 32	PACKET 33	PACKET 34	PACKET 35
LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 1 PRECINCT 2	COMPONENT 1 PRECINCT 3	COMPONENT 2 PRECINCT 1	COMPONENT 2 PRECINCT 2	COMPONENT 2 PRECINCT 3	COMPONENT 2 PRECINCT 4

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FIG.22

LRCP

PACKET 0	PACKET 1	PACKET 2	PACKET 3	PACKET 4	PACKET 5
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1
COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0	COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0

PACKET 6	PACKET 7	PACKET 8	PACKET 9	PACKET 10	PACKET 11
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1
COMPONENT 0 PRECINCT 0	COMPONENT 0 PRECINCT 1	COMPONENT 0 PRECINCT 2	COMPONENT 0 PRECINCT 0	COMPONENT 0 PRECINCT 1	COMPONENT 0 PRECINCT 2

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FIG.23

LRCP

PACKET 0	PACKET 1	PACKET 2	PACKET 3	PACKET 4	PACKET 5
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1
COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0	COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0

PACKET 6	PACKET 7	PACKET 8	PACKET 9	PACKET 10	PACKET 11
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 0 PRECINCT 0	COMPONENT 0 PRECINCT 1	COMPONENT 0 PRECINCT 2	COMPONENT 0 PRECINCT 3	COMPONENT 1 PRECINCT 0	COMPONENT 1 PRECINCT 1

PACKET 12	PACKET 13	PACKET 14	PACKET 15	PACKET 16	PACKET 17
LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0	LAYER 0
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 1 PRECINCT 2	COMPONENT 1 PRECINCT 3	COMPONENT 2 PRECINCT 0	COMPONENT 2 PRECINCT 1	COMPONENT 2 PRECINCT 2	COMPONENT 2 PRECINCT 3

END

PACKET 18	PACKET 19	PACKET 20	PACKET 21	PACKET 22	PACKET 23
LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1
RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 0	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1	RESOLUTION LEVEL 1
COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0	COMPONENT 0 PRECINCT 0	COMPONENT 1 PRECINCT 0	COMPONENT 2 PRECINCT 0

PACKET 24	PACKET 25	PACKET 26	PACKET 27	PACKET 28	PACKET 29
LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 0 PRECINCT 0	COMPONENT 0 PRECINCT 1	COMPONENT 0 PRECINCT 2	COMPONENT 0 PRECINCT 3	COMPONENT 1 PRECINCT 0	COMPONENT 1 PRECINCT 1

PACKET 30	PACKET 31	PACKET 32	PACKET 33	PACKET 34	PACKET 35
LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1	LAYER 1
RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2	RESOLUTION LEVEL 2
COMPONENT 1 PRECINCT 2	COMPONENT 1 PRECINCT 3	COMPONENT 2 PRECINCT 1	COMPONENT 2 PRECINCT 2	COMPONENT 2 PRECINCT 3	COMPONENT 2 PRECINCT 4

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FIG.24

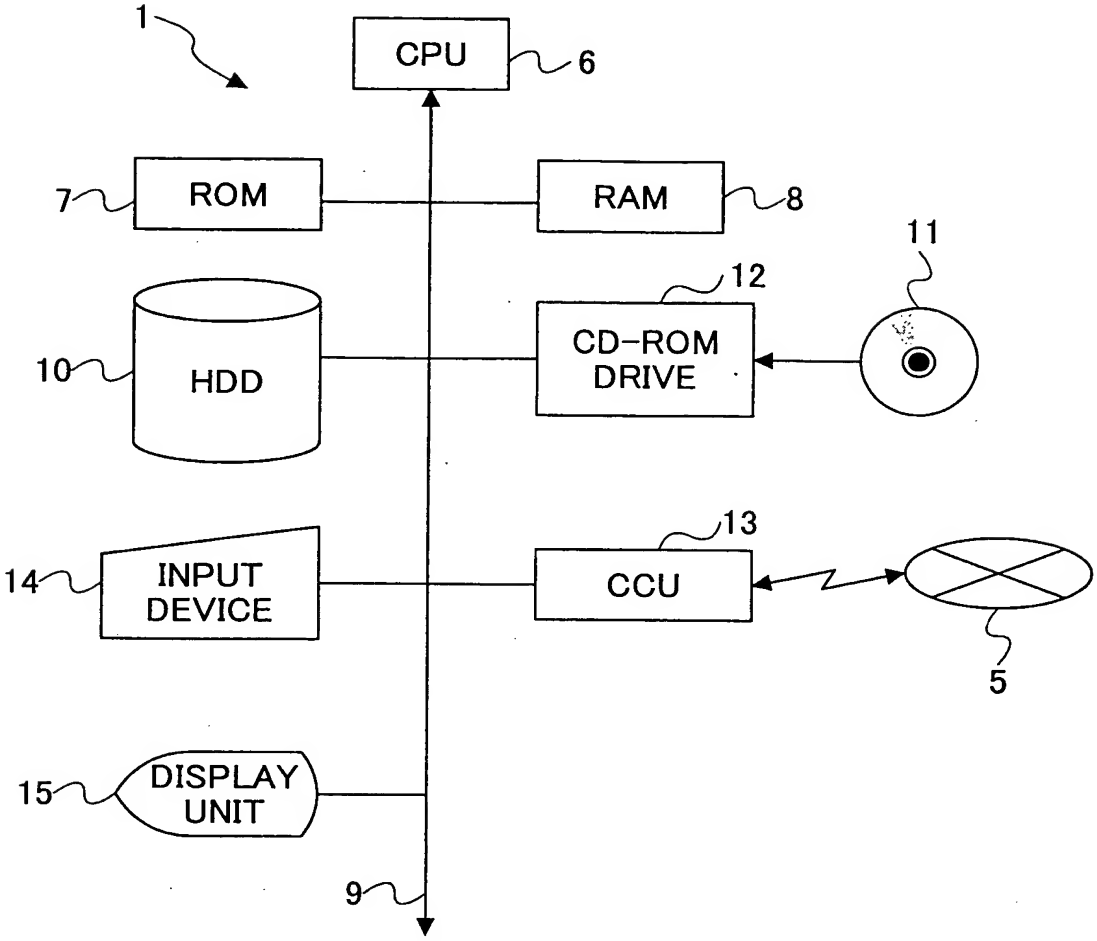

1
CPU
6
7
ROM
RAM
8
11
12
10
HDD
CD-ROM DRIVE
13
14
INPUT DEVICE
CCU
5
15
DISPLAY UNIT
9

FIG.25

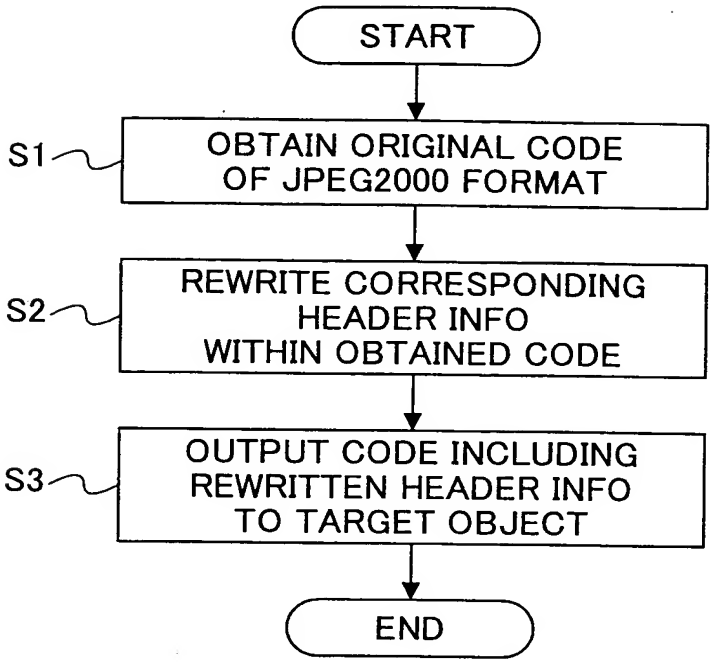

START
S1
OBTAIN ORIGINAL CODE OF JPEG2000 FORMAT
S2
REWRITE CORRESPONDING HEADER INFO WITHIN OBTAINED CODE
S3
OUTPUT CODE INCLUDING REWRITTEN HEADER INFO TO TARGET OBJECT
END

FIG.26

```
FF 4F FF 51 00 2F 00 00-00 00 00 10 00 00 00 10
00 00 00 00 00 00 00 00-00 00 00 10 00 00 00 10
00 00 00 00 00 00 00 00-00 03 07 01 01 07 01 01
07 01 01 FF 52 00 0C 00-00 00 04 01 03 04 04 00
01 FF 5C 00 0D 20 50 58-58 60 58 58 60 58 58 60
FF 64 00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31
FF 90 00 0A 00 00 00 00-03 5A 00 01 FF 93 CF BC
18 05 03 83 BB F7 F2 C1-F3 04 0C 08 91 9B C3 E9
0A 0B 3A 86 79 2D C3 EC-05 87 D2 16 0F 98 20 03
BA 7C 4D 9D 04 B0 CF 47-34 0E 48 3B E2 C0 E0 A0
7C 40 E0 70 40 07 A1 00-D3 CF 06 ED C0 61 41 F3
04 81 C1 00 04 0E 0E 90-49 71 0C 4C C7 D6 21 0F
A4 84 3E 91 E0 20 C6 E6-6B 19 46 AF 34 B2 CE 49
31 BD 0E 44 E8 0E CF DC-65 F0 DD 9E 6A 68 97 56
8B B1 DC 0C 1A 22 64 CD-A2 E2 D3 A3 5B D3 41 C0
A2 17 1E 54 C1 E1 A1 F1-08 00 00 F1 2C 8D 41 D4
1F 01 73 A5 3F 4B 90 14-C1 E1 A1 F1 88 81 C1 00
20 1B FF 36 4F 90 00 D9-DC AA 7F 80 92 2C 24 55
C3 E4 41 1F 31 D8 38 20-30 47 C4 41 BD CC 63 02
E5 68 33 38 64 E3 CE A7-53 F4 3A E4 A9 D5 C4 57
0F 22 57 64 91 6E D3 D1-07 6A CF EA 87 E3 18 55
39 E7 21 1D 7C 72 45 01-BA 2B 81 6D 9E 68 38 C2
59 4D 85 8A 8D 3D C7 80-C3 A2 00 57 6C 41 EB 80
80 80 9F 00 20 6E 9C 08-4B FC 20 80 6F F4 4E 0B
E0 10 C2 04 A1 89 C0 48-A6 57 79 56 C3 0C 04 60
9B D9 00 D5 4A F0 5C 1E-18 D8 89 0A EC 25 8F 2E
11 F4 AC 6E 9E 42 81 0C-89 59 18 44 74 2A 21 09
3B 64 3A 63 73 DB 0A 1D-64 0C C3 BE 3D 32 B4 CB
2D F3 54 A4 C1 14 11 00-5E AF 50 B0 F4 C8 3A 30
44 80 FC 95 0B D6 87 65-9B FD EC 4A 53 01 B0 E2
A6 16 80 80 80 80 FC 60-BA 0F 81 7E CC F4 27 9F
30 30 96 57 31 80 F8 4F-80 48 40 1A 63 D9 EC 1F
DF EE B0 97 FC 23 F0 7C-18 FB FB D2 6C 16 36 4F
D0 85 7F E1 93 49 F1 1D-3F 2C 6A F1 A7 1F F5 A7
50 01 EB CD 6F 97 98 DE-EA 35 59 27 93 84 E0 D0
70 12 DB E8 41 56 1F 9A-62 4A 33 4F F4 DE 94 A6
77 C0 7F 40 AD 06 1B AD-D1 FA 4A B9 BE 6D 68 31
7A 7E 34 FA 0B 2F F1 5D-4E 07 49 79 65 8C 02 4C
71 11 E1 A1 F9 F1 BC D9-36 6C AC CB 0A E3 CB 32
71 88 C5 AE F0 DB A8 19-3E 82 2C 75 BB 0C D2 DE
2B C0 C0 C0 C1 D0 20 C1-07 81 82 C1 D0 20 C1 04
00 F8 4E 85 F2 89 07 9D-91 95 54 05 20 86 F5 C6
56 7A FD B9 3C C1 D0 BE-20 C0 9F 6E B9 CD E2 D7
53 D7 E4 74 8F 90 D8 0D-4D 54 FE 4C 21 FD 8E 17
11 FE 1E D7 DF 19 F9 D2-74 CF 10 75 CE 38 22 5A
AB 3D E8 6E A0 CA 9A 8B-1D DC BB E0 91 EC 79 3D
B2 55 FC A8 BE 54 90 3E-A2 F0 D2 BA A2 AA 99 0E
BE 6D A1 89 47 A0 C5 73-E9 F7 FB 20 24 C8 2C 34
3D 0E 92 97 7D 53 D8 4C-53 8A 1C 78 CD C1 75 49
10 0D 20 E0 44 25 84 E9-23 B1 52 DB 29 A4 CA 4B
63 E4 15 BC 3B A1 3C CA-93 1E E9 C5 AB A8 05 99
3D B3 25 18 33 18 DA FD-29 E0 BE BC D3 FD 4F 3A
C9 A1 6C 94 A8 CA 91 37-71 AC C8 19 D5 23 87 80
B6 7D 2F 2B 8A 58 5C 7B-2C 35 B1 00 6A 64 11 FC
46 3E 22 DF 32 60 FC 88-19 8D FC 8F B9 60 2E 1C
8F 9E C9 BD 7F C4 BE A3-11 5B D0 AB A1 4B 79 53
64 8C 26 F7 41 0B 33 80-25 F2 D1 AC 88 AB 2C 00
E0 EE D2 77 A9 D3 07 3F-EC 19 6E C9 6E A5 9E 9F
A9 A1 1E 37 55 36 1F A8-29 BB 0A 7F 1E 12 93 A3
FE B2 60 E4 70 38 41 FB-09 83 FF D9
```

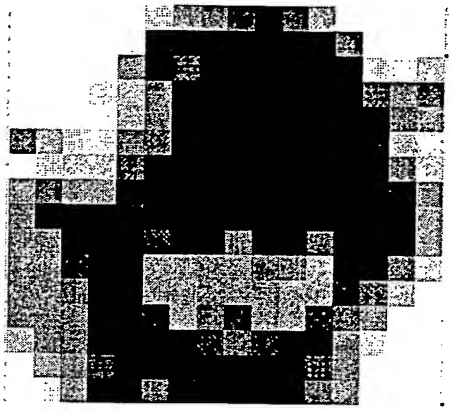
FIG.27

```
SOC    SIZ  Lsiz   Rsiz        Xsiz         Ysiz
[FF4F][FF51][002F][0000][0000 0010] [0000 0010]
      XOsiz        YOsiz        XTsiz       YTsiz
[0000 0000] [0000 0000]-[0000 0010] [0000 0010]
   XTOsiz     YTOsiz     Csiz Ssiz XR  YR Ssiz XR YR
[0000 0000] [0000 00 00]-[0003][07][01][01]07    01 01
                                SGcod       SPcod

Ssiz XR YR COD   Lcod Scod pg layer ct lev cbw h sty

07 01  01 [FF52][000C][00] 00 0004  01 03 04 04 00

                      SPqcd
wt  QCO  Lqcd Sqcd LL HL LH HH HL LH HH HL LH HH
01[FF5C] 000D 20   50 58-58 60 58 58 60 58 58 60
 COM
[FF64] 00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31
                                          SOD
FF 90 00 0A 00 00 00 00-03 5A 00 01[FF93] CF BC
18 05 03 83 BB F7 F2 C1-F3 04 0C 08 91 9B C3 E9
0A 0B 3A 86 79 2D C3 EC-05 87 D2 16 0F 98 20 03
BA 7C 4D 9D 04 B0 CF 47-34 0E 48 3B E2 C0 E0 A0

E0 EE D2 77 A9 D3 07 3F-EC 19 6E C9 6E A5 9E 9F
A9 A1 1E 37 55 36 1F A8-29 BB 0A 7F 1E 12 93 A3
                                       EOC
FE B2 60 E4 70 38 41 FB-09 83 [FFD9]
```

FIG.28

```
SOC    SIZ  Lsiz   Rsiz       Xsiz        Ysiz
[FF4F][FF51][002F][0000][0000 0010] [0000 0010]
      XOsiz       YOsiz       XTsiz       YTsiz
[0000 0000] [0000 0000]-[0000 0010] [0000 0010]
   XTOsiz     YTOsiz     Csiz Ssiz XR  YR Ssiz XR YR
[0000 0000] [0000 00 00]-[0003][07][01][01]07 01 01
                                SGcod      SPcod

Ssiz XR YR COD   Lcod Scod pg [layer] ct lev cbw h sty

07 01 01 [FF52][000C][00]  00 [0002]  01 03 04 04 00

                         SPqcd
wt  QCO  Lqcd Sqcd LL HL LH HH HL LH HH HL LH HH
01[FF5C] 000D 20   50 58-58 60 58 58 60 58 58 60
 COM
[FF64] 00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31
                                          SOD
FF 90 00 0A 00 00 00 00-03 5A 00 01[FF93] CF BC
18 05 03 83 BB F7 F2 C1-F3 04 0C 08 91 9B C3 E9
0A 0B 3A 86 79 2D C3 EC-05 87 D2 16 0F 98 20 03
BA 7C 4D 9D 04 B0 CF 47-34 0E 48 3B E2 C0 E0 A0

                    ⎛
                    ⎜
                    ⎜
                    ⎜
```

FIG.29A



ORIGINAL IMAGE 4 LAYERS

FIG.29B

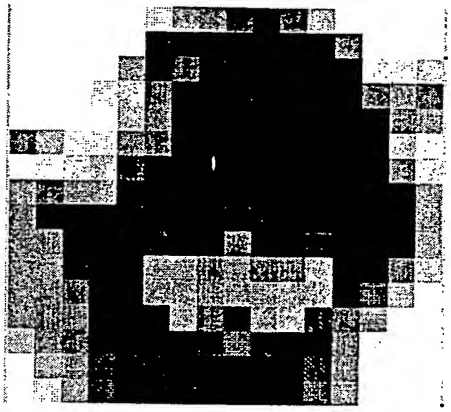


IMAGE DECODED AFTER REWRITING 2 LAYERS

FIG.30

SOC SIZ Lsiz Rsiz Xsiz Ysiz

[FF4F][FF51][002F][0000][0000 0010][0000 0010]

XOsiz YOsiz XTsiz YTsiz

[0000 0000] [0000 0000]-[0000 0010][0000 0010]

XTOsiz YTOsiz Csiz Ssiz XR YR Ssiz XR YR

[0000 0000] [0000 00 00]-[0003][07][01][01]07 01 01

SGcod SPcod

Ssiz XR YR COD Lcod Scod pg lay ct lev cbw cbh sty

07 01 01 [FF52] 000C 00 - 01 0004 01 03 04 04 00

SPqcd

wt QCO Lqcd Sqcd LL HL LH HH HL LH HH HL LH HH

01 [FF5C] 000D 20 50 58-58 60 58 58 60 58 58 60

COM

[FF64]00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31

SOD

FF 90 00 0A 00 00 00 00-03 5A 00 01 [FF93]CF BC

18 05 03 83 BB F7 F2 C1-F3 04 0C 08 91 9B C3 E9

0A 0B 3A 86 79 2D 80 80-80 80 80 80 C0 C0 C0 C3

E0 EE D2 77 A9 D3 07 3F-EC 19 6E C9 6E A5 9E 9F

A9 A1 1E 37 55 36 1F A8-29 BB 0A 7F 1E 12 93 A3

EOC

FE B2 60 E4 70 38 41 FB-09 83 [FFD9]

FIG.31

SOC SIZ Lsiz Rsiz Xsiz Ysiz

[FF4F] [FF51] [002F] [0000] [0000 0008] [0000 0008]

XOsiz YOsiz XTsiz YTsiz

[0000 0000] [0000 0000] [0000 0008] [0000 0008]

XTOsiz YTOsiz Csiz Ssiz XR YR Ssiz XR YR

[0000 0000] [0000 00 00] [0003] [07] [01] [01] 07 01 01

SGcod SPcod

Ssiz XR YR COD Lcod Scod pg lay ct lev cbw cbh sty

07 01 01 [FF52] 000C 00 - 01 0004 01 02 04 04 00

SPqcd

wt QCO Lqcd Sqcd LL HL LH HH HL LH HH

01 [FF5C] 000A 20 50 58-58 60 58 58 60

COM

[FF64] 00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31

SOD

FF 90 00 0A 00 00 00 00-03 5A 00 01 [FF93] CF BC

18 05 03 83 BB F7 F2 C1-F3 04 0C 08 91 9B C3 E9

0A 0B 3A 86 79 2D 80 80-80 80 80 80 C0 C0 C0 C3

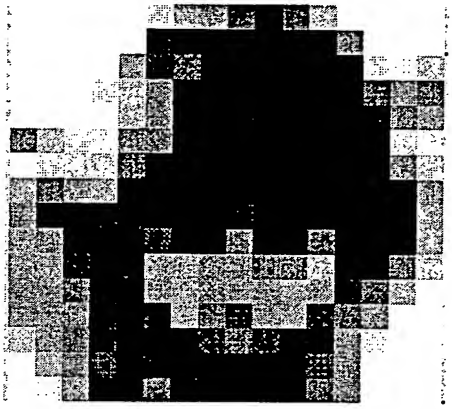
E0 EE D2 77 A9 D3 07 3F-EC 19 6E C9 6E A5 9E 9F

A9 A1 1E 37 55 36 1F A8-29 BB 0A 7F 1E 12 93 A3

EOC

FE B2 60 E4 70 38 41 FB-09 83 [FFD9]

FIG.32A



ORIGINAL IMAGE

DECOMPOSITION LEVEL 3

FIG.32B

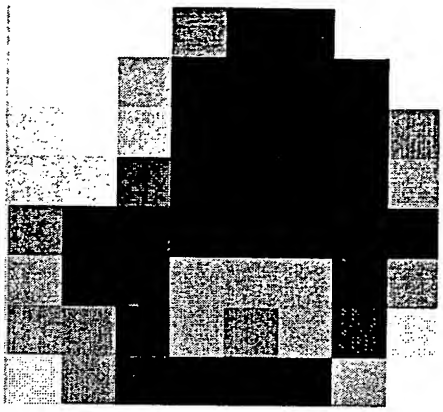


IMAGE DECODED AFTER REWRITING

DECOMPOSITION LEVEL2

FIG.33

SOC SIZ Lsiz Rsiz Xsiz Ysiz

[FF4F][FF51][002F][0000][0000 0010] [0000 0010]

XOsiz YOsiz XTsiz YTsiz

[0000 0000] [0000 0000]-[0000 0010] [0000 0010]

XTOsiz YTOsiz Csiz Ssiz XR YR Ssiz XR YR

[0000 0000] [0000 00 00]-[0003][07][01][01][07 01 01]

SGcod SPcod

Ssiz XR YR COD Lcod Scod pg lay ct lev cbw cbh sty

[07 01 01] [FF52] 000C 00- 04 0004 [01] 03 04 04 00

SPqcd

wt QCO Lqcd Sqcd LL HL LH HH HL LH HH HL LH HH

01 [FF5C]000D 20 50 58-58 60 58 58 60 58 58 60

COM

[FF64]00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31

SOD

FF 90 00 0A 00 00 00 00-03 5A 00 01[FF93] CF BC

18 05 03 83 BB F7 F2 80-80 C0 C3 EC 05 87 D2 16

0F 98 20 03 BA 7C 4D 9D-04 B0 CF 47 34 0E 48 3B

E2 9F 00 20 6E 80 C1 D0-20 C7 D6 21 0F A4 84 3E

E0 EE D2 77 A9 D3 07 3F-EC 19 6E C9 6E A5 9E 9F

A9 A1 1E 37 55 36 1F A8-29 BB 0A 7F 1E 12 93 A3

EOC

FE B2 60 E4 70 38 41 FB-09 83 [FFD9]

FIG.34

SOC SIZ Lsiz Rsiz Xsiz Ysiz

[FF4F] [FF51] [0029] [0000] [0000 0010] [0000 0010]

XOsiz YOsiz XTsiz YTsiz

[0000 0000] [0000 0000]-[0000 0010] [0000 0010]

XTOsiz YTOsiz Csiz Ssiz XR YR

[0000 0000] [0000 00 00]-[0001] [07] [01] [01]

SGcod SPcod

COD Lcod Scod pg lay ct lev cbw cbh sty

[FF52] 000C 00- 04 0004 00 03 04 04 00

SPqcd

wt QCO Lqcd Sqcd LL HL LH HH HL LH HH HL LH HH

01 [FF5C] 000D 20 50 58-58 60 58 58 60 58 58 60

COM

[FF64] 00 0E 00 01 4B 61-6B 61 64 75 2D 33 2E 31

SOD

FF 90 00 0A 00 00 00 00-03 5A 00 01 [FF93] CF BC

18 05 03 83 BB F7 F2 80-80 C0 C3 EC 05 87 D2 16

0F 98 20 03 BA 7C 4D 9D-04 B0 CF 47 34 0E 48 3B

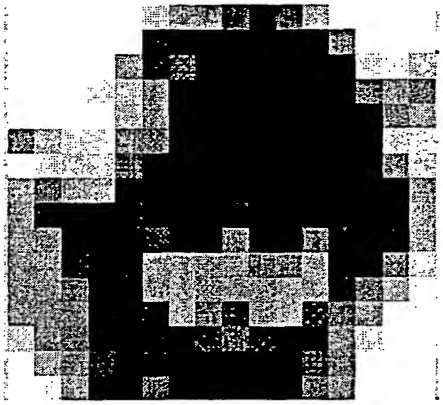
E0 EE D2 77 A9 D3 07 3F-EC 19 6E C9 6E A5 9E 9F

A9 A1 1E 37 55 36 1F A8-29 BB 0A 7F 1E 12 93 A3

EOC

FE B2 60 E4 70 38 41 FB-09 83 [FFD9]

FIG.35A



ORIGINAL IMAGE 3 COMPONENTS

FIG.35B

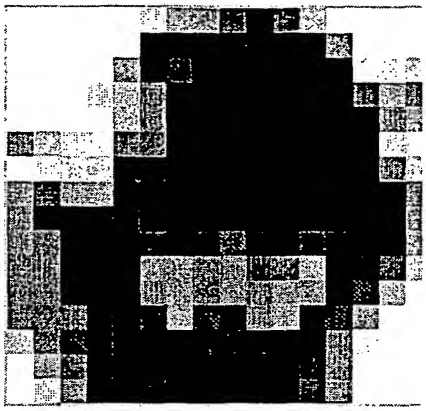


IMAGE DECODED AFTER REWRITING 1 COMPONENT

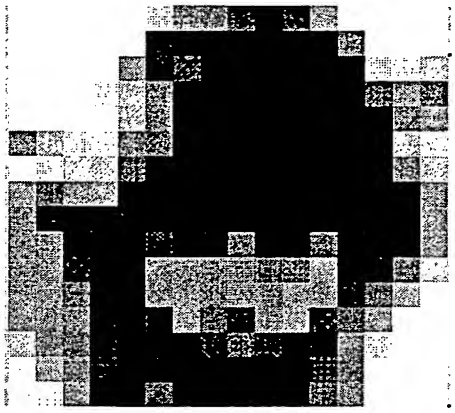
FIG.36

```
SOC   SIZ    Lsiz  Rsiz        Xsiz        Ysiz

[FF4F][FF51][002F][0000][0000 0010] [0000 0010]

      XOsiz        YOsiz        XTsiz       YTsiz

[0000 0000] [0000 0000]-[0000 0008] [0000 0008]

  XTOsiz     YTOsiz      Csiz Ssiz XR YR Ssiz XR YR
[0000 0000] [0000 00 00]-[0003][07][01][01]070101
                              SGcod      SPcod
Ssiz XR YR  COD  Lcod Scod pg lay ct lev cbw cbh sty
07 01 01  [FF52] 000C  00- 00 0004 01 02 04 04 00
                    SPqcd
wt  QCO  Lqcd Sqcd LL HL LH HH HL LH HH COM
01 [FF5C] 000A 20 50 58-58 60 58 58 60 [FF64] 00
                                          SOT  Lsot
0E 00 01 4B 61 6B 61 64-75 2D 33 2E 31 [FF90][00
   Isot
0A][0000] 00 00 01 28 00-01 FF 93 CF BC 18 04 D3
E2 6C 1B 49 C1 F3 03 10-44 39 C0 C2 0B FB C3 EC
05 87 C6 12 0F 8C 18 0A-43 63 13 14 0F E3 C1 98
0F 1F D4 C0 C2 0D 0B 30-C0 F8 02 00 DC 17 C1 E2
                          ⟆
46 FC 61 FE 51 30 0F 90-60 53 BF C1 0D 88 71 25
48 CC 5F 77 38 6B 7D FF-44 08 C6 A8 9D 63 AF 92
                  SOT   Lsot  Isot
40 C6 2A 0D 42 [FF90][000A][0001]00 00 01 31 00
01 FF 93 C7 D8 0A 08 D3-6E 81 94 C0 F0 60 0D AE
4B C0 F8 03 0E 27 E4 C7-D2 12 0F 98 24 3E 60 60
                          ⟆
E2 7E 24 C6 38 97 0F 22-AF 38 6D 71 4F 79 96 40
FC 82 3E 51 50 3E A0 C0-2D DE 49 C3 DD DD 5D B1
67 AC 14 8D C7 BD E9 B8-3B E1 24 70 23 3F A5 35
                  SOT  Lsot  Isot
38 49 5B 38 0B 91 [FF90][000A][0002]00 00 01 46
00 01 FF 93 C7 D2 14 0D-FA 72 41 43 C7 D2 10 0C
57 32 99 C7 CC 10 0B 61-46 C5 C3 E6 09 0F B0 16
0F 8C 18 0E 9D 8C 75 0B-91 0C C8 3D 0C 10 FA C1
                          ⟆
E0 29 DD 44 98 69 44 5F-CB FC 41 FE 41 3F 38 C0
D4 62 9F B3 C4 AB C0 F1-0C 96 0E C0 6C CE 41 0C
                                      SOT   Lsot
A3 E8 53 B9 43 5C AA FB-A9 2A 90 49 [FF90][000A]
Isot
[0003]00 00 01 48 00 01-FF 93 C7 D8 0A 06 84 51
0A 6C C3 E6 08 0C 0D 24-D4 C7 D8 0A 0B 67 3B C1
                          ⟆
31 10 1F 38 E0 EE 2C 3A-69 09 62 CE 56 D3 88 0E
79 5E DB 34 F2 66 17 DC-9E 5B AE E9 32 6F 55 5C
F6 58 31 76 FF D9
```

FIG.37

```
SOC   SIZ    Lsiz  Rsiz       Xsiz       Ysiz

[FF4F][FF51][002F][0000][0000 0010] [0000 0008]

      XOsiz       YOsiz       XTsiz      YTsiz

[0000 0000] [0000 0000]-[0000 0008] [0000 0008]

   XTOsiz     YTOsiz      Csiz Ssiz XR YR Ssiz XR YR
[0000 0000] [0000 00 00]-[0003][07][01][01]070101
                          SGcod      SPcod
Ssiz XR YR  COD  Lcod Scod pg lay ct lev cbw cbh sty
07 01 01  [FF52] 000C  00- 00 0004 01 02 04 04 00
                   SPqcd
wt  QC0  Lqcd Sqcd LL HL LH HH HL LH HH COM
01 [FF5C] 000A 20 50 58-58 60 58 58 60 [FF64] 00
                                          SOT  Lsot
0E 00 01 4B 61 6B 61 64-75 2D 33 2E 31 [FF90][00
    Isot
0A][0000] 00 00 01 28 00-01 FF 93 CF BC 18 04 D3
E2 6C 1B 49 C1 F3 03 10-44 39 C0 C2 0B FB C3 EC
05 87 C6 12 0F 8C 18 0A-43 63 13 14 0F E3 C1 98
                         )
46 FC 61 FE 51 30 0F 90-60 53 BF C1 0D 8B 71 25
48 CC 5F 77 38 6B 7D FF-44 08 C6 A8 9D 63 AF 92
                 SOT   Lsot  Isot
40 C6 2A 0D 42 [FF90][000A][0001]00 00 01 31 00
01 FF 93 C7 D8 0A 08 D3-6E 81 94 C0 F0 60 0D AE
4B C0 F8 03 0E 27 E4 C7-D2 12 0F 98 24 3E 60 60
                         )
E2 7E 24 C6 38 97 0F 22-AF 38 6D 71 4F 79 96 40
FC 82 3E 51 50 3E A0 C0-2D DE 49 C3 DD DD 5D B1
67 AC 14 8D C7 BD E9 B8-3B E1 24 70 23 3F A5 35
                   SOT   Lsot  Isot
38 49 5B 3B 0B 91 [FF90][000A][0002]00 00 01 46
00 01 FF 93 C7 D2 14 0D-FA 72 41 43 C7 D2 10 0C
57 32 99 C7 CC 10 0B 61-46 C5 C3 E6 09 0F B0 16
                         )
E0 29 DD 44 98 69 44 5F-CB FC 41 FE 41 3F 38 C0
D4 62 9F B3 C4 AB C0 F1-0C 96 0E C0 6C CE 41 0C
                                      SOT   Lsot
A3 E8 53 B9 43 5C AA FB-A9 2A 90 49 [FF90][000A]
Isot
[0003]00 00 01 48 00 01-FF 93 C7 D8 0A 06 84 51
0A 6C C3 E6 08 0C 0D 24-D4 C7 D8 0A 0B 67 3B C1
38 C7 DE 09 0F B0 16 0F-8C 18 0F D3 91 7E 0C 4B
                         )
31 10 1F 38 E0 EE 2C 3A-69 09 62 CE 56 D3 88 0E
79 5E DB 34 F2 66 17 DC-9E 5B AE E9 32 6F 55 5C
F6 58 31 76 FF D9
```

FIG.38A



ORIGINAL IMAGE 4 TILES

FIG.38B

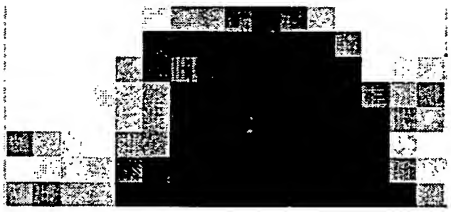
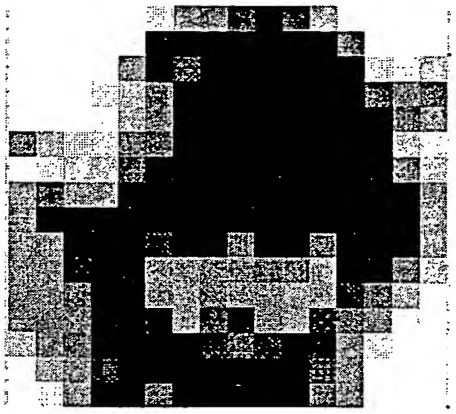


IMAGE DECODED AFTER REWRITING 2 TILES

FIG.39

```
SOC   SIZ    Lsiz  Rsiz        Xsiz        Ysiz

[FF4F][FF51][002F][0000][0000 0010] [0000 0008]

      XOsiz        YOsiz        XTsiz       YTsiz

[0000 0000] [0000 0000]-[0000 0008] [0000 0008]

  XTOsiz     YTOsiz      Csiz Ssiz XR YR Ssiz XR YR
[0000 0000] [0000 00 00]-[0003][07][01][01]070101
                                SGcod      SPcod
Ssiz XR YR  COD  Lcod Scod pg lay ct lev cbw cbh sty
07 01 01  [FF52] 000C  00- 00 0004 01 02 04 04 00
                  SPqcd
wt  QCO  Lqcd Sqcd LL HL LH HH HL LH HH COM
01 [FF5C] 000A 20 50 58-58 60 58 58 60 [FF64] 00
                                          SOT  Lsot
0E 00 01 4B 61 6B 61 64-75 2D 33 2E 31 [FF90][00
  Isot

0A][0001] 00 00 01 28 00-01 FF 93 CF BC 18 04 D3

E2 6C 1B 49 C1 F3 03 10-44 39 C0 C2 0B FB C3 EC
05 87 C6 12 0F 8C 18 0A-43 63 13 14 0F E3 C1 98
                          ⟆
46 FC 61 FE 51 30 0F 90-60 53 BF C1 0D 8B 71 25
48 CC 5F 77 38 6B 7D FF-44 08 C6 A8 9D 63 AF 92
                  SOT   Lsot  Isot

40 C6 2A 0D 42 [FF90][000A][0000]00 00 01 31 00

01 FF 93 C7 D8 0A 08 D3-6E 81 94 C0 F0 60 0D AE
4B C0 F8 03 0E 27 E4 C7-D2 12 0F 98 24 3E 60 60
                          ⟆
FC 82 3E 51 50 3E A0 C0-2D DE 49 C3 DD DD 5D B1
67 AC 14 8D C7 BD E9 B8-3B E1 24 70 23 3F A5 35
                    SOT   Lsot  Isot
38 49 5B 3B 0B 91 [FF90][000A][0002]00 00 01 46
00 01 FF 93 C7 D2 14 0D-FA 72 41 43 C7 D2 10 0C
57 32 99 C7 CC 10 0B 61-46 C5 C3 E6 09 0F B0 16
                          ⟆
E0 29 DD 44 98 69 44 5F-CB FC 41 FE 41 3F 38 C0
D4 62 9F B3 C4 AB C0 F1-0C 96 0E C0 6C CE 41 0C
                                    SOT   Lsot
A3 E8 53 B9 43 5C AA FB-A9 2A 90 49 [FF90][000A]
Isot
[0003]00 00 01 48 00 01-FF 93 C7 D8 0A 06 84 51
0A 6C C3 E6 08 0C 0D 24-D4 C7 D8 0A 0B 67 3B C1
                          ⟆
79 5E DB 34 F2 66 17 DC-9E 5B AE E9 32 6F 55 5C
F6 58 31 76 FF D9
```

FIG.40A



ORIGINAL IMAGE 4 TILES

FIG.40B

IMAGE DECODED AFTER REWRITING 2 TILES
(RIGHT & LEFT REVERSED)

FIG.41

FF 4F FF 51 00 29 00 00-00 00 00 10 00 00 00 10
00 00 00 00 00 00 00 00-00 00 00 10 00 00 00 10
00 00 00 00 00 00 00 00-00 01 07 01 01 FF 5C 00
07 40 40 48 48 50 FF 52-00 0C 00 00 00 01 00 01
04 04 00 01 FF 64 00 25-00 01 43 72 65 61 74 65
64 20 62 79 20 52 4A 32-4B 20 76 65 72 73 69 6F
6E 20 30 2E 31 30 2E 33-28 30 29 FF 90 00 0A 00
00 00 00 00 EC 00 01 FF-93 CF B4 F0 1B 0B F9 AF
13 06 8B 5C 95 4E E8 D6-AD 2B B5 13 3F 8E A7 20
92 96 D6 BD BA 5C 3E DA-A3 0A AF 3F 5D 93 F4 40
CE 91 16 2E ED A3 0B 55-60 41 63 2D 47 3E 5F 88
6A DC 04 4F 96 80 A8 1B-C3 EA 30 87 D4 69 03 E7
64 61 FC 4E 8B 26 43 46-6A D1 5E CB 3D 5C 09 10
1B 0B BD EE 4A 0F 80 4C-03 1E 0D 17 BD FD A7 60
DC 8D 13 3B 48 E9 2E 54-DC 3B 00 25 11 0D 36 83
30 1C 76 1D E7 83 C6 ED-2F 89 D4 C1 78 17 09 41
60 4D BE 25 89 34 71 68-97 60 A6 E5 48 54 FC E9
18 EE 2B AB BE CC 99 C7-C0 02 71 C2 B5 77 9A 90
1D FD E3 9F 9A 15 F3 2E-FE 86 AF 20 52 28 26 40
FB FD 36 99 E6 51 E0 01-1F 02 E2 34 4F E7 CA A3
0D BF 5F FE 7A 96 9B 57-D4 D1 27 53 D8 EF 18 7E
92 38 94 43 40 87 E8 FF-D9

FIG.42

SOC SIZ Lsiz Rsiz Xsiz Ysiz

[FF4F][FF51][0029][0000][0000 0010] [0000 0010]

XOsiz YOsiz XTsiz YTsiz

[0000 0000] [0000 0000]-[0000 0010][0000 0010]

XTOsiz YTOsiz Csiz Ssiz XR YR QCD Lqcd

[0000 0000] [0000 0000]-[0001][07][01][01][FF5C][00

SPqcd SPcod

LL HL LH HH COD Lcod Scod lev

07]40 40 48 48 50 [FF52][000C][00] 00 00 01 00 01

COM

04 04 00.01 [FF64]00 25-00 01 43 72 65 61 74 65
64 20 62 79 20 52 4A 32-4B 20 76 65 72 73 69 6F
SOT
6E 20 30 2E 31 30 2E 33-28 30 29 [FF90]00 0A 00.
SOD
00 00 00 00 EC 00 01[FF-93] CF B4 F0 1B 0B F9 AF
13 06 8B 5C 95 4E E8 D6-AD 2B B5 13 3F 8E A7 20
92 96 D6 BD BA 5C 3E DA-A3 0A AF 3F 5D 93 F4 40
CE 91 16 2E ED A3 0B 55-60 41 63 2D 47 3E 5F 88
6A DC 04 4F 96 80 A8 1B-C3 EA 30 87 D4 69 03 E7
64 61 FC 4E 8B 26 43 46-6A D1 5E CB 3D 5C 09 10
1B 0B BD EE 4A 0F 80 4C-03 1E 0D 17 BD FD A7 60
DC 8D 13 3B 48 E9 2E 54-DC 3B 00 25 11 0D 36 83
30 1C 76 1D E7 83 C6 ED-2F 89 D4 C1 78 17 09 41
60 4D BE 25 89 34 71 68-97 60 A6 E5 48 54 FC E9
18 EE 2B AB BE CC 99 C7-C0 02 71 C2 B5 77 9A 90
1D FD E3 9F 9A 15 F3 2E-FE 86 AF 20 52 28 26 40
FB FD 36 99 E6 51 E0 01-1F 02 E2 34 4F E7 CA A3
0D BF 5F FE 7A 96 9B 57-D4 D1 27 53 D8 EF 18 7E
EOC
92 38 94 43 40 87 E8 [FF-D9]

FIG.43

```
FF 4F FF 51 00 29 00 00-00 00 00 20 00 00 00 20

00 00 00 00 00 00 00 00-00 00 00 20 00 00 00 20

00 00 00 00 00 00 00 00-00 01 07 01 01 FF 5C 00

0A 40 40 48 48 50 48 48 50 FF 52 00 0C 00 00 00 01 00 02

04 04 00 01 FF 64 00 25-00 01 43 72 65 61 74 65
64 20 62 79 20 52 4A 32-4B 20 76 65 72 73 69 6F
6E 20 30 2E 31 30 2E 33-28 30 29 FF 90 00 0A 00
00 00 00 00 EC 00 01 FF-93 CF B4 F0 1B 0B F9 AF
13 06 8B 5C 95 4E E8 D6-AD 2B B5 13 3F 8E A7 20
92 96 D6 BD BA 5C 3E DA-A3 0A AF 3F 5D 93 F4 40
CE 91 16 2E ED A3 0B 55-60 41 63 2D 47 3E 5F 88
6A DC 04 4F 96 80 A8 1B-C3 EA 30 87 D4 69 03 E7 .
64 61 FC 4E 8B 26 43 46-6A D1 5E CB 3D 5C 09 10 ..
1B 0B BD EE 4A 0F 80 4C-03 1E 0D 17 BD FD A7 60
DC 8D 13 3B 48 E9 2E 54-DC 3B 00 25 11 0D 36 83
30 1C 76 1D E7 83 C6 ED-2F 89 D4 C1 78 17 09 41
60 4D BE 25 89 34 71 68-97 60 A6 E5 48 54 FC E9
18 EE 2B AB BE CC 99 C7-C0 02 71 C2 B5 77 9A 90
1D FD E3 9F 9A 15 F3 2E-FE 86 AF 20 52 28 26 40
FB FD 36 99 E6 51 E0 01-1F 02 E2 34 4F E7 CA A3
0D BF 5F FE 7A 96 9B 57-D4 D1 27 53 D8 EF 18 7E
92 38 94 43 40 87 E8 FF-D9
```

FIG.44

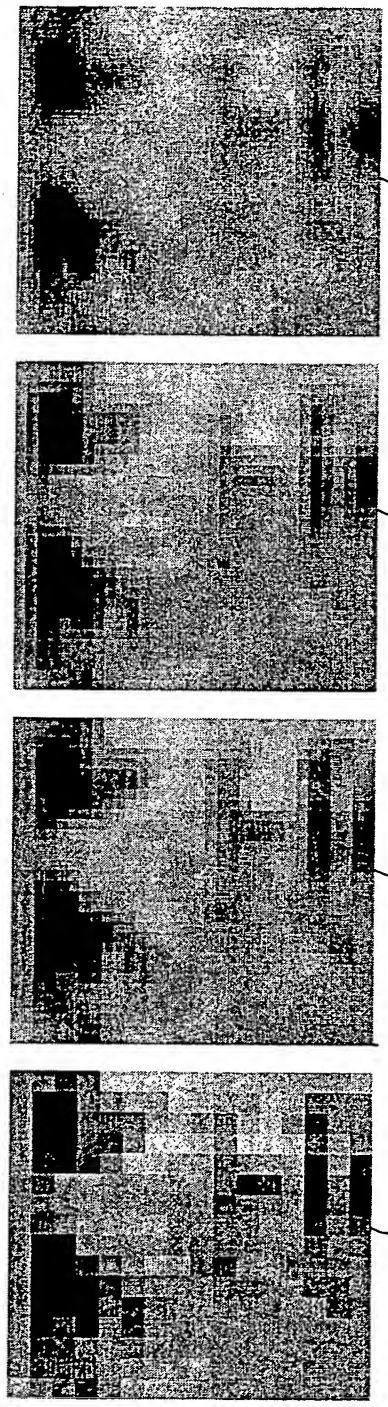
```
FF 4F FF 51 00 29 00 00-00 00 00 40 00 00 00 40
00 00 00 00 00 00 00 00-00 00 00 40 00 00 00 40
00 00 00 00 00 00 00 00-00 01 07 01 01 FF 5C 00
0D 40 40 48 48 50 48 48 50 48 48 50 FF 52 00 0C 00 00 00 01 00 03
04 04 00 01 FF 64 00 25-00 01 43 72 65 61 74 65
64 20 62 79 20 52 4A 32-4B 20 76 65 72 73 69 6F
6E 20 30 2E 31 30 2E 33-28 30 29 FF 90 00 0A 00
00 00 00 00 EC 00 01 FF-93 CF B4 F0 1B 0B F9 AF
13 06 8B 5C 95 4E E8 D6-AD 2B B5 13 3F 8E A7 20
92 96 D6 BD BA 5C 3E DA-A3 0A AF 3F 5D 93 F4 40
CE 91 16 2E ED A3 0B 55-60 41 63 2D 47 3E 5F 88
6A DC 04 4F 96 80 A8 1B-C3 EA 30 87 D4 69 03 E7
64 61 FC 4E 8B 26 43 46-6A D1 5E CB 3D 5C 09 10
1B 0B BD EE 4A 0F 80 4C-03 1E 0D 17 BD FD A7 60
DC 8D 13 3B 48 E9 2E 54-DC 3B 00 25 11 0D 36 83
30 1C 76 1D E7 83 C6 ED-2F 89 D4 C1 78 17 09 41
60 4D BE 25 89 34 71 68-97 60 A6 E5 48 54 FC E9
18 EE 2B AB BE CC 99 C7-C0 02 71 C2 B5 77 9A 90
1D FD E3 9F 9A 15 F3 2E-FE 86 AF 20 52 28 26 40
FB FD 36 99 E6 51 E0 01-1F 02 E2 34 4F E7 CA A3
0D BF 5F FE 7A 96 9B 57-D4 D1 27 53 D8 EF 18 7E
92 38 94 43 40 87 E8 FF-D9
```

FIG.45A

FIG.45B

FIG.45C

FIG.45D



ORIGINAL IMAGE
(16 × 16 PIXELS)

RESOLUTION
INCREASED BY 2 TIMES
BY 3RD ORDER INTERPOLATION
(32 × 32 PIXELS)

RESOLUTION
INCREASED BY 2 TIMES
BY PRESENT INVENTION
(32 × 32 PIXELS)

RESOLUTION
INCREASED BY 4 TIMES
BY PRESENT INVENTION
(64 × 64 PIXELS)

FIG.46

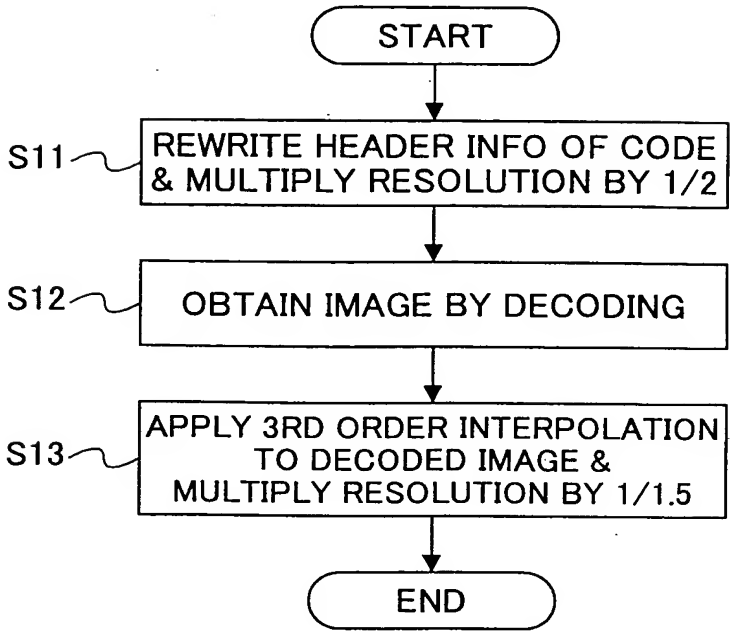
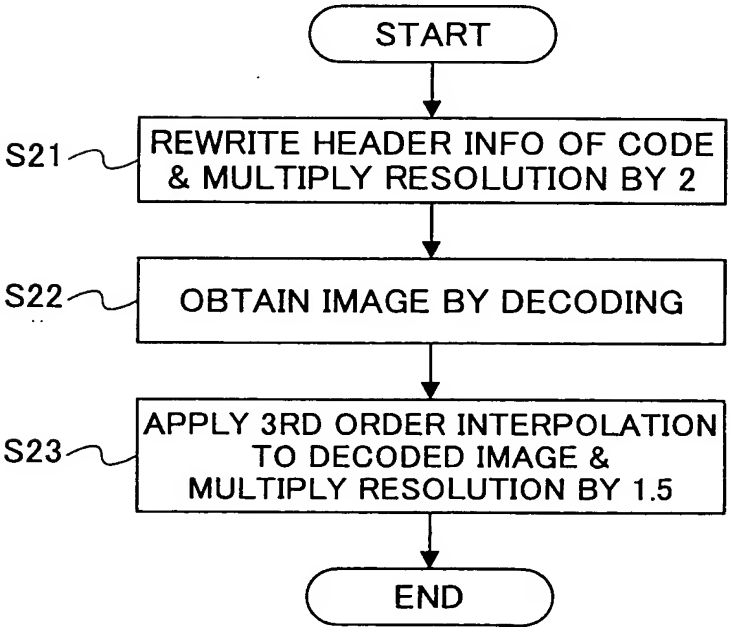

START
S11
REWRITE HEADER INFO OF CODE & MULTIPLY RESOLUTION BY 1/2
S12
OBTAIN IMAGE BY DECODING
S13
APPLY 3RD ORDER INTERPOLATION TO DECODED IMAGE & MULTIPLY RESOLUTION BY 1/1.5
END

FIG.47


START
S21
REWRITE HEADER INFO OF CODE & MULTIPLY RESOLUTION BY 2
S22
OBTAIN IMAGE BY DECODING
S23
APPLY 3RD ORDER INTERPOLATION TO DECODED IMAGE & MULTIPLY RESOLUTION BY 1.5
END